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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/801,641	LAURILA ET AL.	
	Examiner	Art Unit	
	Jianye Wu	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-14,16-40 and 42-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-14,16-40 and 42-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments/ Amendment

1. Applicant's arguments filed on 8/11/2008 have been fully considered but are moot due to the fact that all independent claims have been amended and new ground rejections are made.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

> 1. Determining the scope and contents of the prior art.
> 2. Ascertaining the differences between the prior art and the claims at issue.
> 3. Resolving the level of ordinary skill in the pertinent art.
> 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1-3, 5-14, 16-40, 42-53** are rejected under 35 U.S.C. 103(a) as being anticipated by 3GPP TS 33.107 version 6.0.0 (hereinafter 3GPP107; Applicant submitted a copy of 3GPP TS 33.107 version 6.0.0, but did not list it in IDS; furthermore, the content of version 6.0.0 is same as version 5.50 which was published in 2002-12 as indicated in page 68 of the document of version 6.0.0 with both being

editing version of SP-21) in view of 3GPP TS 29.207, version 5.5.1, 2003-10 (hereinafter 3GPP29.207, a copy is provided Applicant as a NPL document, but not listed in IDS).

For **claims 1** and **51,** 3GPP107 discloses a method and a computer medium encoded computer executable instructions, implementing steps comprising:

monitoring (LEMF, figure 1b and page 8) signaling information ("request for lawful interception activation" in Figure 1b and page 10) related to at least one session (Legal Interception session between LEMF and GSN in Figure 1b) involving at least a first network (Home Network, Figure C.2, page 64) and a second network (Visited Network, Figure C.2, page 64) of different types (Home network has different functionality compare with Visited network, Figure C.2, page 64), and one of first and second networks being a general packet radio service network or universal mobile telecommunication system based network (GSN. Figure 1b, or the networks described in 3GPP107 are UMTS network, as title indicated);

monitoring session content related to the same at least on session (LEMF is monitoring the contents of the LI session between LEMF and GSN in Figure 1b) provided in at least one of the first and second networks, wherein said session content related to the same at least one session is provided in another of the first and second networks (contents of the LI session between LEMF and GSN, Figure 1b and page 10);

delivering an indication to start interception is delivered between the first and second networks ("request for lawful interception activation" in Figure 3 from LEMF to ADMF and Figure C.2, page 64), wherein one of a network element and a function of

the first network sends LI Lawful Interception information either directly to one of a support node of the second network, an Administration Function (both "request for lawful interception interrogation" and "request for lawful interception ack" are sent to ADMF in Figure 4 in view of Figure 1b), and a Delivery Function (DF 2 in Figure 1b);

intercepting the at least one session (one of sessions indicated by X1, X2 and X3, Figure 1b);

3GPP107 is silent on wherein a Mapping Function is provided which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user; and 3GPP107 does not explicitly discloses one of first and second networks being an internet protocol based network.

However, 3GPP107 discloses that LEMF being an IMS under 3GPP architecture and GSN being a GPRS support network (Figure 1b and page 8) is cable of capturing any data belongs to any user (Figure 1a-1c), therefore, there exist a mapping function between LEMF network and its monitoring networks to ensure that it is able to capture the data associated with a particularly monitored user. Furthermore, it is well known in the art that a UMTS network supports Internet protocols by functioning as lower layers of IP protocol layer and can be a part of an Internet network, as disclosed by 3GPP29.207 ("The go interface uses **IP** flow based policies", Section 4.1, line 7, page 9) which is closely related to 3GPP107.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a mapping function which translates target indications of the first network to corresponding target indications of the second network

associated with a same monitored user in order to capture the data associated with any monitored user and to select one of the first and second networks as an internet protocol based network as Internet networks are most widely used networks.

For **claim 38**, 3GPP107 discloses an apparatus comprising: a processor configured to

monitor (LEMF, figure 1b and page 8) signaling information ("request for lawful interception activation" in Figure 1b and page 10) related to at least one session (Legal Interception session between LEMF and GSN in Figure 1b) involving at least a first network (Home Network, Figure C.2, page 64) and a second network (Visited Network, Figure C.2, page 64) of different types (Home network has different functionality compare with Visited network, Figure C.2, page 64), and one of first and second networks being a general packet radio service network or universal mobile telecommunication system based network (GSN. Figure 1b., or the networks described in 3GPP107 are UMTS network, as title indicated);

monitor session content related to the same at least on session (LEMF is monitoring the contents of the LI session between LEMF and GSN in Figure 1b) provided in at least one of the first and second networks, wherein said session content related to the same at least one session is provided in another of the first and second networks (contents of the LI session between LEMF and GSN, Figure 1b and page 10);

a transmitter configured to deliver an indication to start interception is delivered between the first and second networks ("request for lawful interception activation" in Figure 3 from LEMF to ADMF and Figure C.2, page 64);

wherein one of a network element and a function of the first network sends LI Lawful Interception information either directly to one of a support node of the second network, an Administration Function (both "request for lawful interception interrogation" and "request for lawful interception ack" are sent to ADMF in Figure 4 in view of Figure 1b), and a Delivery Function (DF 2 in Figure 1b);

3GPP107 is silent on wherein a Mapping Function is provided which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user; and 3GPP107 does not explicitly discloses one of first and second networks being an internet protocol based network.

However, 3GPP107 discloses that LEMF being an IMS under 3GPP architecture and GSN being a GPRS support network (Figure 1b and page 8) is cable of capturing any data belongs to any user (Figure 1a-1c), therefore, there exist a mapping function between LEMF network and its monitoring networks to ensure that it is able to capture the data associated with a particularly monitored user. Furthermore, it is well known in the art that a UMTS network supports Internet protocols by functioning as lower layers of IP protocol layer and can be a part of an Internet network, as disclosed by 3GPP29.207 ("The go interface uses **IP** flow based policies", Section 4.1, line 7, page 9) which is closely related to 3GPP107.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a mapping function which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user in order to capture the data associated with any

monitored user and to select one of the first and second networks as an internet protocol based network as Internet networks are most widely used networks.

As to **claims 2** and **39**, 3GPP107 in view of 3GPP29.207 discloses claim 1 and 38, wherein the step of monitoring signaling information comprises monitoring signaling information provided in an IP Multimedia Subsystem (IMS) network (LEMF in Figure 1b; networks described in 3GPP are IMS network, as indicated in Figure C.2 in view of claim 1).

As to **claim 3** and **40**, 3GPP107 in view of 3GPP29.207 discloses claim 1 and 38, wherein the monitoring session content comprises monitoring session content provided in a General Packet Radio Service (GPRS) network (GSN, Figure 1b and GSN is "GPRS Support Node" by definition in page 8).

As to **claim 5** and **42**, 3GPP107 in view of 3GPP29.207 discloses claim 1 and 38, wherein said one of the network element and the function of the first network is a Control State Control Function (CSCF, page 11, line 1-20 in view of page 8).

As to **claim 6** and **43**, 3GPP107 in view of 3GPP29.207 discloses claim 1 and a system according to claim 38, wherein the administration function (ADMF of Figure. 2) is included in the signaling path and commands a support node of the second network to start the interception ("Figure 2 ... is relevant for activation deactivation and interrogation of the lawful interception", Section 5, last 2 lines, page 10).

As to **claim 7** and **31**, 3GPP107 in view of 3GPP29.207 discloses claim 1 and 30, wherein the LI information is sent from one of a Call State Control Function (CSCF, page 11, line 1-20 in view of page 8 and Figure. 2) and a Policy Decision Function of a

CSCF (PDF of CSCF, Figure C.2) to a General Packet Radio Service (GPRS) support node (GSN, Figure 1b) over X1_1 interface (X1_1 interface, Figure 1b).

3GPP107 **is silent on** Go-interface.

In the same field endeavor, 3GPP29.207 discloses Go-interface for delivering a message ("The go interface allows service-based local policy information to be "pushed" to …", lines 1-6 of Section 4.1, page 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified 3GPP107 by adding information from 3GPP29.207 and 3GPP33.107 to use go interface to send LI message for the benefit of quickly delivering the message.

As to **claim 8**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the LI information is sent during media authorization (suggested by "Authorize QoS Resources", Figure C.2).

As to **claim 9**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the LI information is sent to a Gateway General Packet Radio Service Support Node (GSN, Fig. 1c in view of definition page 8) from a Proxy-Call State Control Function (P-CSCF, Figure C.2).

As to **claim 10**, 3GPP107 in view of 3GPP29.207 discloses claim 9, wherein, when the GGSN receives the LI information (LI activate message, Figure 5), it starts the interception of the content of communication related to the IP Multimedia Subsystem (IMS) session (suggested by "LI Activation ack", Figure 5), and delivers the information to a Serving GPRS Support Node (SGSN, Fig. 6) by attaching the LI information

received from the P-CSCF to a Create PDP Context Response message ("IRI's one PDP context", page 26 in view of IRI definition in page 3), which the SGSN in turn starts the interception of content of communication related to the IMS session (the LI Session between LEMF and GSN in Figure 1b).

As to **claim 11**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 10, in case of an inter-SGSN handover, the LI information is transferred from an old SGSN of a monitored user to a new SGSN (handover, Section 6.3.3.4, Page 23).

As to **claim 12**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the ADMF performs actual interception activation in a Control State Control Function (P-CSCF or S-CSCF of Figure C.2) and a General Packet Radio Service Support Node (GSN of Figure 1b in view of SGGN or GGSN of page 8) and sends the same LI information to these networks elements, wherein information on a need of interception is stored in the GSN, wherein one of the CSCF and a Policy Decision Function (PDF of CSCF, Figure C.2) of the CSCF includes only an indication of the interception need in the authorization decision (suggested by "Authorize QoS Resources", Figure C.2).

As to **claim 13**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the interception by the second network is activated by the first network using a type 2 Delivery Function (DF2, Figure 1b) wherein Lawful Interception (LI) information is sent from a Control State Control Function (P-CSCF or S-CSCF, Figure C.2) then sends the LI information to a General Packet Radio Service Support Node (GSN, Figure 1b).

As to **claim 14**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the interception by the second network is activated by the first network based on mapping of an IP Multimedia Subsystem (LEMF, Figure 1b) identity to a General Packet Radio Service Support Node (GPRS) identity (identity of GSN, Figure 1b in view of GSN definition in page 8).

As to **claim 16**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the Mapping Function is provided in the ADMF (ADMF of Figure 1b) which receives Lawful Interception information related to a session in the second network when the session is started (Figure 1b in view of Figure 10).

As to **claim 17**, 3GPP107 in view of 3GPP29.207 discloses claim 1, wherein the Mapping Function is provided in the ADMF which receives session identifiers of the first network when the session in the first network is started (as explained by claim 1).

As to **claim 18**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, but **is silent on** the Mapping Function is located in a DF2.

3GPP33.107 discloses DF2 (DF2 of Figure 1b), which is a block equivalent to ADMF as shown in Figure 1b, since claim 1 disclose Mapping Function is located in ADMF, one skilled in the art would place a mapping function in DF2 for the same reason as disclosed in claim 1.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to place a mapping function in DF2 in order to know the exact user LEMF is monitoring.

As to **claim 19**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein the interception in the first network is activated based on an examination of content of communication (CC, Section 5.1.3, page 13) of the second network.

As to **claim 20**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 19, wherein an entity (DF3 or GSN of Figure 1b) checks a message received from a support node of the second network for detecting Lawful Interception (LI) information, and forwards such information, if found, to a Mapping Function, the Mapping Function resolving the LI information to a user identity of the first network wherein one of a network element and a function of the first network is commanded to start interception using the resolved user identity (the LI activation process as shown in Fig. 4).

As to **claim 21**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 20, wherein the Mapping Function is a Mapping Function of one of another network element and a function, the one of the another network element and the function commanding the one of the network element and the function of the first network to start interception using the resolved user identity (the LI activation process as shown in Fig. 4).

As to **claim 22**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 20, wherein the Mapping Function is located in a Delivery Function 3 (DF 3 of Figure 1b).

As to **claim 23**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 20, wherein the entity is a Delivery Function (DF2 or DF3 of Figure 1b).

As to **claim 24**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 20, wherein the entity is a Support Node of the second network (GSN of Figure 1b).

As to **claim 25**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein the interception in the first network is activated based on a mapping of an identity of a user used in the second network to an identity of the same user in the first network (the activate process shown in Figure 5).

As to **claim 26**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 25, wherein a media authorization is performed between the first and second networks, a User Equipment sends an Authorization Token to the second network which Authorization Token represents a session being created in the first network, the Authorization Token being reported to a Mapping Function in a Lawful Interception (LI) information message which includes a user identity used in the second network, the Mapping Function activating interception in the first network (suggested by "Authorize QoS" of Figure C.2).

As to **claim 27**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 26, wherein the Mapping Function is a Mapping function of an Administration Function (ADMF of Fig. 4 in view of Figure 1b).

As to **claim 28**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 26, wherein the Mapping Function is located in a DF2 (suggested by the session path from LEMF to GSN via DF2 of Figure 1b).

As to **claim 29**, 3GPP107 discloses the method according to claim 25, wherein an Administration Function (ADMF, Figure 1b) receives Lawful Interception (LI) information containing a session identifier used in the first network from a network element of the second network, the ADMF uses the session identifier directly for interception activation in the first network ((suggested by the session path from LEMF to GSN via ADMF of Figure 1b).

As to **claim 30**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein the interception in the first network is activated based on upload of Lawful Interception (LI) information from a network element of the second network (suggested by LI interrogation ack message of Figure 10).

As to **claim 31**, 3GPP107 in view of 3GPP29.207 discloses claim 30, wherein the LI information is sent from one of a Call State Control Function (CSCF) and a Policy Decision Function (PDF) of a CSCF to a General Packet Radio Service (GPRS) support node (GSN, Figure 1b) over X1_1 interface (X1_1 interface, Figure 1b).

3GPP107 **is silent on** Go-interface.

In the same field endeavor, 3GPP29.207 discloses Go-interface for delivering a message ("The go interface allows service-based local policy information to be "pushed" to …", lines 1-6 of Section 4.1, page 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified 3GPP107 by adding information from 3GPP29.207 and 3GPP33.107 to use go interface to send LI message for the benefit of quickly delivering the message.

As to **claim 32**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein information of matching triggers of the first network is forwarded to the second network by using identities known in the second network (suggested activation process shown in Figure 5).

As to **claim 33**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 32, wherein the used identities are one of an International Mobile Subscriber Identity (IMSI, line 2 of [0008]) and a combination of a General Packet Radio Service Charging ID and a Gateway General Packet Radio Service Support Node identification (suggested by GSN, Figure 1b, in view of GSN definition in page 8).

As to **claim 34**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein the decision of interception is done for every session created in the first network (suggested by Figure 1b, where decision is made by GSN network).

As to **claim 35**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein the decision of interception issued for a session created in the first network is maintained in the first network after a termination of the session for use for at least one following session (suggested by the activation process in Figure 5).

As to **claim 36**, 3GPP107 in view of 3GPP29.207 discloses the method according to claim 1, wherein monitoring in the first network is activated by sending information to the first network when the interception is originally activated using target identifiers of the second network (suggested by the activation process in Figure 5).

As to **claim 37**, 3GPP107 in view of 3GPP29.207 discloses claim 36, wherein the target identifiers are one of an International Mobile Subscriber Identity (ID of user from LEMF point of view, Figure 1b), a Mobile Subscriber ISDN Number (ID of user MGW, Figure 1a), and an International Mobile Equipment Identity (ID of user in HLR, Figure HLR).

As to **claim 44**, 3GPP107 in view of 3GPP29.207 discloses claim 38, wherein the first network comprises one Call State Control Function (CSCF) and a Policy Decision Function (PDF), which is configured to send LI information directly to a support node of the second network (X1_1 interface, Figure 1b).

3GPP107 **is silent on** LI is sent via a Go-interface.

In the same field endeavor, 3GPP29.207 discloses a Go-Interface to send a message ("The go interface allows service-based local policy information to be "pushed" to …", lines 1-6 of Section 4.1, page 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modified 3GPP107 by adding information from 3GPP29.207 and 3GPP33.107 to use go interface to send LI message for the benefit of quickly delivering the message.

As to **claim 45**, 3GPP107 in view of 3GPP29.207 discloses claim 38, comprising one of an Administration Function (ADMF), a type 2 delivery function DF2 and a type 3 delivery function DF3 which is configured to communication with the first and second network (suggested by Figure 1b, which shows ADMF, DF2 and DF3).

As to **claim 46**, 3GPP107 in view of 3GPP29.207 discloses claim 45, comprising one of an Administration Function (ADMF), DF2 and DF3 (suggested by Figure 1b, which shows ADMF, DF2 and DF3) comprise the mapping function (as explained in claim 1).

For **claims 47,** 3GPP107 discloses an apparatus, comprising:

A transmitter configured to deliver an indication to an indication to start interception is delivered ("request for lawful interception activation" in Figure 3 from LEMF to ADMF and Figure C.2, page 64) between the first (Home Network, Figure C.2, page 64) and a second network (Visited Network, Figure C.2, page 64) of different types (Home network has different functionality compare with Visited network, Figure C.2, page 64),

wherein the apparatus is configured for the interception of at least one session involving the first and second networks (one of sessions indicated by X1, X2 and X3, Figure 1b), one of first and second networks being a general packet radio service network or universal mobile telecommunication system based network (GSN. Figure 1b., or the networks described in 3GPP107 are UMTS network, as title indicated),

wherein apparatus is configured to monitor signaling information provided in one of the first and second networks (LEMF, figure 1b and page 8) of at least one session

(one of sessions indicated by X1, X2 and X3, Figure 1b) and session content related to the same at least session provided in another of the first and second networks (LEMF is monitoring the contents of the LI session between LEMF and GSN in two different networks, Figure 1b, wherein the contents of the session is the same in both networks), and to deliver an indication to start interception between the first and second networks (Figure 3 and 4 wherein "lawful interception activation ack" indicates the start of interception),

wherein one of a network element and a function of the first network is configured to send LI Lawful Interception information ("request for lawful interception interrogation" is sent to ADMF in Figure 4 in view of Figure 1b) directly to one of a support node of the second network (GSN, Figure 1b), an Administration Function (ADMF in Figure 4 in view of Figure 1b), and a Delivery Function (DF 2 in Figure 1b);

3GPP107 is silent on wherein a Mapping Function is provided which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user; and 3GPP107 does not explicitly discloses one of first and second networks being an internet protocol based network.

However, 3GPP107 discloses that LEMF being an IMS under 3GPP architecture and GSN being a GPRS support network (Figure 1b and page 8) is cable of capturing any data belongs to any user (Figure 1a-1c), therefore, there exist a mapping function between LEMF network and its monitoring networks to ensure that it is able to capture the data associated with a particularly monitored user. Furthermore, it is well known in the art that a UMTS network supports Internet protocols by functioning as lower layers

of IP protocol layer and can be a part of an Internet network, as disclosed by 3GPP29.207 ("The go interface uses **IP** flow based policies", Section 4.1, line 7, page 9) which is closely related to 3GPP107.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a mapping function which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user in order to capture the data associated with any monitored user and to select one of the first and second networks as an internet protocol based network as Internet networks are most widely used networks.

As to **claim 48**, 3GPP107 in view of 3GPP29.207 discloses claim 47, further comprising a mediation function ("Mediation Function" of Figure 1b).

As to **claim 49**, 3GPP107 in view of 3GPP29.207 discloses claim 47, being implemented as one of an Administration Function (ADMF), a type 2 delivery function DF2 and a type 3 delivery function DF3 which is configured to communication with the first and second network (suggested by Figure 1b, which shows ADMF, DF2 and DF3).

For **claim 50,** 3GPP107 discloses an apparatus, comprising:

monitoring means for monitoring (LEMF, figure 1b and page 8) signaling information ("request for lawful interception activation" in Figure 1b and page 10) related to at least one session (Legal Interception session between LEMF and GSN in Figure 1b) involving at least a first network (Home Network, Figure C.2, page 64) and a second network (Visited Network, Figure C.2, page 64) of different types (Home network has different functionality compare with Visited network, Figure C.2, page 64), and one of

first and second networks being a general packet radio service network or universal mobile telecommunication system based network (the networks described in 3GPP107 are UMTS network, as title indicated);

delivering means for delivering an indication to start interception is delivered between the first and second networks ("request for lawful interception activation" in Figure 3 from LEMF to ADMF and Figure C.2, page 64);

wherein one of a network element and a function of the first network sends LI Lawful Interception information either directly to one of a support node of the second network, an Administration Function (both "request for lawful interception interrogation" and "request for lawful interception ack" are sent to ADMF in Figure 4 in view of Figure 1b), and a Delivery Function (DF 2 in Figure 1b);

3GPP107 is silent on wherein a Mapping Function is provided which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user; and 3GPP107 does not explicitly discloses one of first and second networks being an internet protocol based network.

However, 3GPP107 discloses that LEMF being an IMS under 3GPP architecture and GSN being a GPRS support network (Figure 1b and page 8) is cable of capturing any data belongs to any user (Figure 1a-1c), therefore, there exist a mapping function between LEMF network and its monitoring networks to ensure that it is able to capture the data associated with a particularly monitored user. Furthermore, it is well known in the art that a UMTS network supports Internet protocols by functioning as lower layers of IP protocol layer and can be a part of an Internet network, as disclosed by

3GPP29.207 ("The go interface uses **IP** flow based policies", Section 4.1, line 7, page 9) which is closely related to 3GPP107.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a mapping function which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user in order to capture the data associated with any monitored user and to select one of the first and second networks as an internet protocol based network as Internet networks are most widely used networks.

For **claim 52,** 3GPP107 discloses an apparatus configured to:

monitoring (LEMF, figure 1b and page 8) signaling information ("request for lawful interception activation" in Figure 1b and page 10) related to at least one session (Legal Interception session between LEMF and GSN in Figure 1b) involving at least a first network (Home Network, Figure C.2, page 64) and a second network (Visited Network, Figure C.2, page 64) of different types (Home network has different functionality compare with Visited network, Figure C.2, page 64), and one of first and second networks being a general packet radio service network or universal mobile telecommunication system based network (the networks described in 3GPP107 are UMTS network, as title indicated);

wherein one of a network element and a function of the first network sends LI Lawful Interception information either directly to one of a support node of the second network, an Administration Function (both "request for lawful interception interrogation"

and "request for lawful interception ack" are sent to ADMF in Figure 4 in view of Figure 1b), and a Delivery Function (DF 2 in Figure 1b);

3GPP107 is silent on wherein a Mapping Function is provided which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user; and 3GPP107 does not explicitly discloses one of first and second networks being an internet protocol based network.

However, 3GPP107 discloses that LEMF being an IMS under 3GPP architecture and GSN being a GPRS support network (Figure 1b and page 8) is cable of capturing any data belongs to any user (Figure 1a-1c), therefore, there exist a mapping function between LEMF network and its monitoring networks to ensure that it is able to capture the data associated with a particularly monitored user. Furthermore, it is well known in the art that a UMTS network supports Internet protocols by functioning as lower layers of IP protocol layer and can be a part of an Internet network, as disclosed by 3GPP29.207 ("The go interface uses **IP** flow based policies", Section 4.1, line 7, page 9) which is closely related to 3GPP107.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a mapping function which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user in order to capture the data associated with any monitored user and to select one of the first and second networks as an internet protocol based network as Internet networks are most widely used networks.

For **claim 53**, 3GPP107 discloses an apparatus configured to:

delivering an indication to start interception ("request for lawful interception activation" in Figure 3 from LEMF to ADMF and Figure C.2, page 64) of a session between a first network (Home Network, Figure C.2, page 64) and a second network (Visited Network, Figure C.2, page 64) of different types (Home network has different functionality compare with Visited network, Figure C.2, page 64), and one of first and second networks being a general packet radio service network or universal mobile telecommunication system based network (the networks described in 3GPP107 are UMTS network, as title indicated);

monitoring session content related to the same at least on session (LEMF is monitoring the contents of the LI session between LEMF and GSN in Figure 1b) provided in at least one of the first and second networks, wherein said session content related to the same at least one session is provided in another of the first and second networks (contents of the LI session between LEMF and GSN, Figure 1b and page 10);

wherein one of a network element and a function of the first network is configured to send LI Lawful Interception information directly to one of a support node of the second network, an Administration Function (both "request for lawful interception interrogation" and "request for lawful interception ack" are sent to ADMF in Figure 4 in view of Figure 1b), and a Delivery Function (DF 2 in Figure 1b);

3GPP107 is silent on wherein a Mapping Function is provided and is configured to translate target indications of the first network to corresponding target indications of the second network associated with a same monitored user; and 3GPP107 does not

explicitly discloses one of first and second networks being an internet protocol based network.

However, 3GPP107 discloses that LEMF being an IMS under 3GPP architecture and GSN being a GPRS support network (Figure 1b and page 8) is cable of capturing any data belongs to any user (Figure 1a-1c), therefore, there exist a mapping function between LEMF network and its monitoring networks to ensure that it is able to capture the data associated with a particularly monitored user. Furthermore, it is well known in the art that a UMTS network supports Internet protocols by functioning as lower layers of IP protocol layer and can be a part of an Internet network, as disclosed by 3GPP29.207 ("The go interface uses **IP** flow based policies", Section 4.1, line 7, page 9) which is closely related to 3GPP107.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a mapping function which translates target indications of the first network to corresponding target indications of the second network associated with a same monitored user in order to capture the data associated with any monitored user and to select one of the first and second networks as an internet protocol based network as Internet networks are most widely used networks.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianye Wu whose telephone number is (571)270-1665. The examiner can normally be reached on Monday to Thursday, 8am to 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jianye Wu/

Examiner, Art Unit 2416

/Kevin C. Harper/

Primary Examiner, Art Unit 2416